Indexes

A

Abramovitch, Rudolph A., **Beckert**, Joseph M., **Chinnasamy**, Pennamuthiriar, **Xiaohua**, He, **Pennington**, William, and **Sanjivamurthy**, A.R. Vinutha. Electrophilic Amination. Direct Primary Amination of Arenes Using Phthalimide Derivatives. **623.**

Acton, David G., **Rogers**, Kevin J., and **Poyser**, J. Philip. Displacement with Nitrogen Nucleophiles at C-3' of 7-Aminocephalosporanic Acid and Derivatives Promoted by Trialkylsilyl Trifluoromethanesulphonates. **657.**

Adachi, Yukiko, See **Hibino**, Satoshi, **275.**

Adlington, Robert M., See **Baldwin**, Jack E., **759.**

Agmon, Ilana, **Kaftory**, Menachem, **Ashkenazi**, Pnina, **Muller**, Raffaello, **Philipsborn**, Wolfgang von, and **Ginsburg**, David. Propellanes. XCII. The Stereochemistry of Diels-Alder Reactions of Tetraenic Propellanes and of 1,6-Bridged-[10]annulenes with 4-Substituted 1,2,4-Triazoline-3,5-diones. **33.**

Akamanchi, Krishnacharya G., See **Pradhan**, Suresh K., **813.**

Akasaka, Takeshi, **Takeuchi**, Kikuko, **Misawa**, Yoshihisa, and **Ando**, Wataru. Reaction of Singlet Oxygen with α,β-Unsaturated Aldimines : Novel Formation of 3-Amino-4-methylene-1,2-dioxolanes. **445.**

Alkubaisi, Abdulla H., **Parkes**, Harold G., and **Shaw**, Robert A. Phosphorus-Nitrogen Compounds. Part 58. The Reactions of Hexachlorocyclotriphosphazatriene with Ethane-, 1,3-Propane- and 1,4-Butane-Diols. Spiro, Ansa, Bridged and Dangling Derivatives and Their ^{31}P and ^{1}H Nuclear Magnetic Resonance Spectra. **347.**

Almeida, Paulo S., **Lobo**, Ana M., and **Prabhakar**, Sundaresan. A Novel Synthesis of Benzimidazolinones. **653.**

Alvarez, Maria T., See **Eliel**, Ernest L., **937.**

Ando, Wataru, See **Akasaka**, Takeshi, **445.**

Aoki, Tsutomu and **Nagata**, Wataru. Stereochemistry in Borohydride Reduction of 7-Iminocephems : An Improved Method for Conversion of the 7α-Amino-1-oxa(thia)cephems into the 7β-Amino Isomers. **687.**

Aoyama, Toyohiko, **Katsuta**, Sachiko, and **Shioiri**, Takayuki. New Methods and Reagents in Organic Synthesis. 81. Lithium Trimethylsilyldiazomethane : A Useful Reagent for the Preparation of 1,2,3-Triazoles from Ketenimines. **133.**

Arnold, Nelly Apostolides, See **Simões**, Fatima, **111.**

Asai, Koji, See **Eguchi**, Shoji, **125.**

Ashkenazi, Pnina, See **Agmon**, Ilana, **33.**

Ashton, Michael J., **Hills**, Susan J., **Newton**, Christopher G., **Taylor**, John B., and **Tondu**, Sylvie C. D. Synthesis of 6-Aryl-4-hydroxypiperidin-2-ones and a Possible Application to the Synthesis of a Novel HMG-CoA Reductase Inhibitor. **1015.**

Aszodi, Jozsef, **Chantot**, Jean-François, **Collard**, Jeannine, and **Teutsch**, Georges. Synthesis of 3-(Alkyl and Aryl)-thio-2-isocephems. **1061.**

Atta-ur-Rahman, See **Gunatilaka**, A. A. Leslie, **999.**

B

Bachi, Mario D. and **Bosch**, Eric. Homolytic Cyclization of O-Alkenyl-Se-phenylselenocarbonates. Synthesis of Lactones. **579.**

Bachi, Mario D. and **Denenmark**, Daniella. Homolytic Cyclization of Selenol Esters. Synthesis of Chromanones. **583.**

Back, Thomas G., **Brunner**, Kurt, **Codding**, Penelope W., and **Roszak**, Aleksander W. Synthesis of Some Novel 16-Azaestrones and 17-Aza-D-homoestrones. The X-Ray Crystal Structure of 3-Methoxy-16-aza-14β-1,3,5-(10)-estratrien-15-one. **219.**

Bahadir, Müfit, See **Bieniek**, Dieter, **719.**

Baik, Woonphil, See **Russell**, Glen A., **143.**

Balasubramaniam, Sinnathamby, See **Gunatilaka**, A. A. Leslie, **999.**

Baldwin, Jack E., **Adlington**, Robert M., **Kang**, Tae Won, **King**, Lionel G., and **Patel**, Vipulkumar K. Desulphurisation of Penicillins with Triphenylstannane. **759.**

Banerji, Asoke and **Kalena**, Govind P. Heterocycles from Diacetyl Phenols : Synthesis of Benzodipyrans, Acetylchromenes and Pyrano[1,2]benzisoxazoles. **711.**

Barbara, Claude, See **Ficini**, Jacqueline, **547.**

Barrett, Anthony G. M. and **Bezuidenhoudt**, Barend C. B. A Convenient Stereoselective Synthesis of α-Glycosyl Esters. **209.**

Batra, Radhika and **Breslow**, Ronald. The Radical Relay Chlorination of Flexible Nicotinate Esters. **23.**

Beckert, Joseph M., See **Abramovitch**, Rudolph A., **623.**

Bertrand, Michèle P., See **Crozet**, Michel P., **849.**

Bezuidenhoudt, Barend C. B., See **Barrett**, Anthony G. M., **209.**

Bhakuni, Dewan S., **Jain**, Sudha, and **Singh**, Meenakshi. The Aberrant Biosynthesis of Bromoglaucines. **315.**

Bieniek, Dieter, **Bahadir**, Müfit, and **Korte**, Friedhelm. Formation of Heterocyclic Hazardous Compounds by Thermal Degradation of Organic Compounds. **719.**

Bittner, Magalis, See **Campos**, Verónica, **779.**

Blum, Roberto B., See **Jung**, Michael E., **93.**

Boadle, Deborah K., See **Cheung**, H. T. Andrew, **751.**

Boettner, Fred E., See **Pettit**, George R., **553.**

Bognár, Rezsö, See **Herczegh**, Pál, **887.**

Boniface, Peter, See **Magnus**, Philip, **951.**

Bontems, Roger J., See **Pettit**, George R., **553.**

Boojamra, Constantine G., See **Ferguson**, Richard R., **121.**

Bosch, Eric, See **Bachi**, Mario D., **579.**

Bouchard, Pierre, See **Côté**, Roland, **987.**

Boukouvalas, John, See **Jefford**, Charles W., **673.**

Boulet, Camille André and **Poulton**, Gerald Arthur. Benz-fused Lactones I. Synthesis of 3-Methyl-1(3*H*)-isobenzofuranones [Phthalides]. **405.**

Bourguignon, Jean-Jacques, See **Zinoune**, Abdallah, **1077.**

Bowden, Bruce F. and **Coll**, John C. Studies of Australian Soft Corals. XLV. Epoxidation Reactions of Cembranoid Diterpenes : Stereochemical Outcomes. **669.**

Bowers, Raymond John, See **Wolfe**, Saul, **639.**

Brandt, Edward V., See **Steynberg**, Jan P., **923.**

Breslow, Ronald, See **Batra**, Radhika, **23.**

Bringmann, Gerhard and **Jansen**, Johannes R. Chiral Economy with Respect to Rotational Isomerism : Rational Synthesis of Hamatine and (Optionally) Ancistrocladine from Joint Helical Precursors. **137.**

Brooks, Charles J. W., **Cole**, W. John, and **Robins**, David J. Gas Chromatography-Mass Spectrometry of Cyclic Boronate Derivatives of Some Alkaloid and Terpenoid Diols. **151.**

Brossi, Arnold, See **Muzaffar**, Anjum, **365.**

Brown, Dearg S., **Ley**, Steven V., and **Bruno**, Maurizio. Substitution Reactions of 2-Benzenesulphonyl Cyclic Ethers with Silyl Enol Ethers Promoted by Aluminium Trichloride. **773.**

Brown, Herbert C., **Gupta**, Ashok K., **Rangaishenvi**, Milind V., and **Prasad**, J. V. N. Vara. Chiral Synthesis *via* Organoboranes. 19. The Successful One-Carbon Homologation of Heterocyclic Boronate Esters with High Optical Purity. **283.**

Btown, Stephen H., See **Ferguson**, Richard R., **121.**

Brunner, Kurt, See **Back**, Thomas G., **219.**

Bruno, Maurizio, See **Simões**, Fatima, **111** ; **Brown**, Dearg S., **773.**

Buchan, Robert, **Fraser**, Martin, and **Lin**, Paul V. S. Kong Thoo. Synthesis and Protonation of Dipyrrolo[1,2-*a* : 2′,1′-*c*]-pyrazines. **857.**

Burger, Johann F. W., See **Steynberg**, Jan P., **923.**

Busteed, Roslynn, See **Donnelly**, Dervilla M. X., **411.**

C

Cabezas, Nieves, **Thierry**, Josiane, and **Potier**, Pierre. A Short and Efficient Synthesis of (±)-Isoretronecanol and (±)-Trachelanthamidine. **607.**

Campos, Verónica, **Jakupovic**, Jasmin, **Bittner**, Magalis, **Silva**, Mario, and **Stuessy**, Tod. Sesquiterpene Lactones from *Dendroseris neriifolia*. **779.**

Capraro, Hans-Georg, **Lang**, Marc, and **Schneider**, Peter. Synthesis of Regiospecifically Substituted Pyrimidyl Derivatives and Their Incorporation into Penems. **643.**

Caspi, Eliahu. See **Njar**, Vincent C. O., **1051.**

Chan, T. M., See **Ganguly**, A. K., **83.**

Chandrasekhar, Vadapalli and **Reddy**, Narreddi Sivasankara. Reactions of Hexachlorocyclotriphosphazene with 1,2-Diaminopropane. **611.**

Chantot, Jean-François, See **Aszodi**, Jozsef, **1061.**

Chen, Yao-Quan, See **Wang**, Yu, **593.**

Cheung, H. T. Andrew, **Boadle**, Deborah K., and **Tran**, Trung Q. *N*-(L-α-Aminoacyl) Derivatives of Methotrexate. **751.**

Chiefari, John, **Janowski**, Wit K., and **Prager**, Rolf H. A Facile Synthesis of Phthalideisoquinolines by Decarboxylation of Phthalidecarboxylates in the Presence of Imine Methiodides. **863.**

Chinnasamy, Pennamuthiriar, See **Abramovitch**, Rudolph A., **623.**

Chrzanowska, Maria, See **Muzaffar**, Anjum, **365.**

Clive, Derrick L. J. and **Mohammed**, Ali Y. Conversion of Olefins into Five-membered Nitrogen Heterocycles by Radical Cyclization. **1157.**

Codding, Penelope W., See **Back**, Thomas G., **219.**

Cole, W. John, See **Brooks**, Charles J. W., **151.**

Coleman, Robert S. and **Danishefsky**, Samuel J. Degradation and Manipulations of the Immunosuppressant FK506 : Preparation of Potential Synthetic Intermediates. **157.**

Coll, John C., See **Bowden**, Bruce F., **669.**

Collard, Jeannine, See **Aszodi**, Jozsef, **1061.**

Contreras, Fernando Gómez, **Lora-Tamayo**, Manuel, and **Sanz**, Ana M^a. Diazapolycyclic Compounds XXVIII. The Reaction of Acetylated Terpenoids with Diazaquinones. **791.**

Coombes, Philip, **Goosen**, André, and **Taljaard**, Benjamin. The Thermal and Photolytic Decomposition of 9-Aryl-9-xanthenyl Azides to 11-Aryldibenzo[*b,f*][1,4]oxazepines. **559.**

Cossé-Barbi, A., See **Dubois**, J. E., **767.**

Côté, Roland, **Bouchard**, Pierre, **Couture**, Yvon, **Furstoss**, Roland, **Waegell**, Bernard, and **Lessard**, Jean. Synthesis of 1-Hydroxy-7-azatricyclo[6.3.1.0^{2,7}]dodecan-9-ones : Potential Intermediates for the Total Synthesis of Securinines. **987.**

Coutrot, Philippe, **Elgadi**, Abdelaziz, and **Grison**, Claude. Highly Functionalized Aziridines II : a Facile Synthesis of Diethyl Aziridinylphosphonates and 2-Chloroaziridinylphosphonates. **1179.**

Couture, Yvon, See **Côté**, Roland, **987.**

Crabtree, Robert H., See **Ferguson**, Richard R., **121.**

Crich, David, **Eustace**, K. Angeline, and **Ritchie**, Timothy J. Carbonyl Radical Cyclizations : Preparation of Some Heterocyclic Ketones. **67.**

Crozet, Michel P., **Vanelle**, Patrice, **Jentzer**, Olivier, and **Bertrand**, Michèle P. Synthesis of 4-Highly Branched Imidazole Derivatives *via* Cine-Substitution and $S_{RN}1$ Substitution of 5-Nitroimidazoles with Anions of Nitroalkanes. **849.**

D

Danishefsky, Samuel J., See **Coleman**, Robert S., **157.**
Davies, Stephen G. and **Pyatt**, Dirk. Synthesis of 1-Substituted Derivatives of Codeine from 1-Bromocodeine *via* Palladium Catalysed Coupling Reactions. **163.**
Denenmark, Daniella, See **Bachi**, Mario D., **583.**
Desos, Patrice, **Schlewer**, Gilbert, and **Wermuth**, Camille Georges. Synthesis of Triazolo- and Tetrazoloquinoline Derivatives with Antithrombotic Activity. **1085.**
Dewar, Michael J. S. and **Holder**, Andrew J. Aromatic Energies of Some Heteroaromatic Molecules. **1135.**
DiNinno, Frank P., See **Greenlee**, Mark L., **195.**
Dion, Robert P., See **Wasserman**, Harry H., **629.**
Divakaran, Pulukkunatt P., See **Pradhan**, Suresh K., **813.**
Dodd, Robert H., **Doisy**, Xavier, **Potier**, Pierre, **Potier**, Marie-Claude, and **Rossier**, Jean. Synthesis and Pharmacological Activity of a Pyrido[3',4' : 5,4] pyrrolo[1,2-*c*][1,4]benzodiazepine-3,10-dione, a New Benzodiazepine-β-carboline Type Hybrid Molecule. **1101.**
Doisy, Xavier, See **Dodd**, Robert H., **1101.**
Donnelly, Dervilla M. X., **Finet**, Jean-Pierre, and **Stenson**, Paul H. Palladium Catalysed Arylation of Chrom-3-en-4-ol Acetates *via* Their Tributyltin Enolates. **15.**
Donnelly, Dervilla M. X., **Busteed**, Roslynn, **Kenny**, Peter M., **Polonsky**, Judith, **Finet**, Jean-Pierre, and **Prangé**, Thierry. Structural Modifications of Dalbergin Using Benzeneseleninic Anhydride. **411.**
Dubois, J. E. and **Cossé-Barbi**, A. Real Geometry of Molecules : Influential Substructure Information and Conformation Monitoring in Strained Sugars and Piperidines. **767.**
Dufresne, Claude, See **Pettit**, George R., **213, 553.**
Dumont, W., See **Krief** A., **1203.**

E

Eguchi, Shoji, **Asai**, Koji, and **Sasaki**, Tadashi. Thermal Cycloaddition Reactions of 4,5-Epoxy-4-azahomoadamantanes with Acetylenic 1,3-Dipolarophiles. Novel Formation of 4-Azahomoadamantano[4,5-*a*]-pyrrole Derivatives. **125.**
Eilenberg, Wolf, See **Schäfer**, Hans J., **979.**
Elgadi, Abdelaziz, See **Coutrot**, Philippe, **1179.**
Eliel, Ernest L., **Olefirowicz**, Edward M., **Alvarez**, Maria T., **Hodgson**, Derek J., and **Towle**, Debra K. Conformational Analysis. 49. A Complete Conformational Analysis of the *trans*-2-(α-Hydroxybenzyl)thiane Sulfoxides. **937.**
El'perina, Elizabeth A., **Serebryakov**, Edward P., and **Struchkova**, Marina I. Heterocyclic Polyethers Derived from D-Sorbitol and D-Mannitol as Hosts for Chiral Ammonium Salts. **805.**
Ende, D. Van, See **Krief**, A., **1203.**
Engel, Ch. R., **Ibrahim**, Ibrahim Halim, **Mukherjee**, Debabrata, **Szöghy**, Robert, and **Salvi**, Vilas Shivram. A Novel Pathway to 11-Oxa Steroids. Syntheses of 11-Oxaestradiol and a New Synthesis of 11-Oxa-1-dehydro-11-deoxycortisol. **905.**
Engelbrecht, Gerhardus J., See **Holzapfel**, Cedric W., **433.**
Eustace, K. Angeline, See **Crich**, David, **67.**
Evans, Jeffrey M., See **Negishi**, Ei-ichi, **55.**

F

Faulkner, D. John, See **Rao**, Ch. Bheemasankara, **103.**

Ferguson, Richard R., **Boojamra**, Constantine G., **Brown**, Stephen H., and **Crabtree**, Robert H. Functionalization of Nitrogen and Oxygen Containing Heterocycles by Mercury Photosensitized Dehydrodimerizations. **121.**

Fernando, H. Chandasiri, See **Gunatilaka**, A. A. Leslie, **999.**

Ferreira, Daneel, See **Steynberg**, Jan P., **923.**

Fétizon, Marcel, **Goulaouic**, Pierre, and **Hanna**, Issam. The Chemistry of 1,4-Dioxene (2,3-Dihydro-1,4-dioxin). Part VIII. **521.**

Ficini, Jacqueline, **Barbara**, Claude, and **Ouerfelli**, Ouathek. An Efficient Stereoselective Synthesis of *Z*-2-(2-Methylene Cyclohexylidene)ethanol by the Photosensitized Oxygenation of 1-Vinylcyclohexene. A Model for Ring A of Calcitriol. **547.**

Finet, Jean-Pierre, See **Donnelly**, Dervilla M.X., **15, 411.**

Fodor, Gabor, See **Sussangkarn**, Kawporn, **467.**

Fontana, Francesca, See **Minisci**, Francesco, **489.**

Franck, Burchard, See **Guang-yi**, Li, **899.**

Fraser, Martin, See **Buchan**, Robert, **857.**

Freer, Andrew A., **Islam**, Md. Azizul, **Kirby**, Gordon W., and **Mahajan**, Mohinder P. Reactions of the Pyrrolidine Dienamine of Pummerer's Ketone with Nitrosocarbonylmethane. **147.**

Frost, Jonathan R., **Gaudillière**, Bernard R.P., **Kauffmann**, Elisabeth, **Loyaux**, Denis, **Normand**, Nadine, **Petry**, Geneviève, **Poirier**, Philippe, **Wenkert**, Ernest, and **Wick**, Alexander E. Intermolecular Trapping by Indole of a Spiroindolenine Intermediate Formed during the Bischler-Napieralski Cyclisation of *N*-Acetyltryptamine. **175.**

Fukumoto, Keiichiro, See **Shishido**, Kozo, **39, 43**; **Ihara**, Masataka, **63**; **Hibino**, Satoshi, **275.**

Fukuyama, James M., See **Wasserman**, Harry H., **629.**

Furstoss, Roland, See **Côté**, Roland, **987.**

G

Gaede, Bruce J., See **Jung**, Michael E., **93.**

Galindo, A., See **González**, Antonio G., **529.**

Ganguly, Ashit K., See **Girijavallabhan**, Viyyoor M., **47.**

Ganguly, A. K., **Pramanik**, B., **Chan**, T.M., **Sarre**, O., **Liu**, Y.-T., **Morton**, J., and **Girijavallabhan**, V. The Structure of New Oligosaccharide Antibiotics, 13-384 Components 1 and 5. **83.**

Garbarino, Juan A. and **Nicoletti**, Marcello. Iridoids from Endemic Chilean Bignoniaceae. **697.**

Gaudillière, Bernard R. P., See **Frost**, Jonathan R., **175.**

Gauthier, Jacques Yves, See **Young**, Robert N., **967.**

Geletii, Yurii V., **Strelets**, Vladimir V., **Shafirovich**, Vladimir Ya., and **Shilov**, Alexander E. Cation Radicals of Heterocyclic *N*-Oxides and Their Reactions. **677.**

George, Clifford, See **Sussangkarn**, Kawporn, **467.**

Ghosez, Léon, See **Gobeaux**, Benoit, **29.**

Ginsburg, David, See **Agmon**, Ilana, **33.**

Girijavallabhan, Viyyoor M., and **Ganguly**, Ashit K. Free Radical Cyclization in the Synthesis of Fused Bicyclic β-Lactams. **47.**

Girijavallabhan, V., See **Ganguly**, A. K., **83.**

Gisler, Matthias R., See **Jung**, Michael E., **93.**

Gobeaux, Benoit and **Ghosez**, Léon. Intramolecular [2+2]Cycloadditions of Keteniminium Salts Derived from α- and β-Amino Acids. A Route to Azabicyclic Ketones. **29.**

Golič, Ljubo, See **Stanovnik**, Branko, **259.**

González, Antonio G., **Galindo**, A., and **Mansilla**, H. Biomimetic Transformations of Sesquiterpene Lactones. **529.**
Goosen, André, See **Coombes**, Philip, **559.**
Goulaouic, Pierre, See **Fétizon**, Marcel, **521.**
Greenlee, Mark L., **DiNinno**, Frank P., and **Salzmann**, Thomas N. Studies on the Total Synthesis of 6-Amido-1-methylcarbapenems. **195.**
Griffiths, Gwerydd and **Stirling**, Charles J. M. Concerted *versus* Stepwise Processes in Eliminative Fission of Oxacycles. **89.**
Grison, Claude, See **Coutrot**, Philippe, **1179.**
Guang-yi, Li, **Lenz**, Jürgen, and **Franck**, Burchard. Asnipyrones A and B, two Novel Metabolites from *Aspergillus niger*. **899.**
Guiles, Joseph, See **Meyers**, A. I., **295.**
Guillot, Nadine, **Janousek**, Zdenek, and **Viehe**, Heinz G. An Expeditious Synthesis of 2-Dialkylamino-4-chloropyrimidines from Silylated Primary Enamines and Phosgeniminium Salts. **879.**
Gunatilaka, A. A. Leslie, **Fernando**, H. Chandasiri, **Atta-ur-Rahman**, **Qureshi**, M. Munawer, and **Balasubramaniam**, Sinnathamby. Neisosposinine : a New Oxindole Alkaloid from *Neisosperma oppositifolia* [Apocynaceae]. **999.**
Guo, Deliang, See **Russell**, Glen A., **143.**
Gupta, Ashok K., See **Brown**, Herbert C., **283.**

H

Haas, Wilhelm, See **Lange**, Walter, **633.**
Habjan, Gorazd, See **Stanovnik**, Branko, **259.**
Hajós, György and **Snatzke**, Günther. Synthesis and Chiroptical Properties of 5α-Cholest-2-eno[2,3-*b*]pyrazine Derivatives. **783.**
Halazy, S., See **Krief**, A., **1203.**
Hanessian, Stephen, **Kagotani**, Masahiro, and **Komaglou**, Kossi. Design and Reactivity of Organic Functional Groups —2-Pyridylsulfonates as Nucleofugal Esters : Remarkably Mild Transformations into Halides and Olefins. **1115.**
Hanna, Issam, See **Fétizon**, Marcel, **521.**
Hano, Yoshio, **Miyagawa**, Yoko, **Yano**, Mamiko, and **Nomura**, Taro. Correlation between Albanol B and Mulberrofuran **I, and Structure of Mulberrofuran S, Novel 2-Arylbenzofuran Derivative. 745.**
Harding, Kenn E. and **Jones**, Michael W. Stereoselective Synthesis of 3-Hydroxy-2,6-dialkylpiperidines. **663.**
Harrington, Philip M., See **Taylor**, Edward C., **1169.**
Hase, T. A., See **Wähälä**, K., **183.**
He, Cun-Heng, See **Shang**, Xiao, **421.**
Hebel, David, See **Rozen**, Shlomo, **249.**
Henning, Rainer, See **Urbach**, Hansjoerg, **957.**
Herald, Cherry L., See **Pettit**, George R., **553.**
Herczegh, Pál, **Zsély**, Martina, **Szilágyi**, László, and **Bognár**, Rezsö. Cycloaddition Reactions Leading to Carbohydrate Derivatives, Parts II. Hetero Diels-Alder Reactions of Monosaccharide 1,1-Dithiooxalates and *O*-Thioformates. A Comparative Study. **887.**
Herron, S. J., See **Russell**, Glen A., **143.**
Hibino, Satoshi, **Sugino**, Eiichi, **Adachi**, Yukiko, **Nomi**, Kazuhiko, **Sato**, Kohichi, and **Fukumoto**, Keiichiro. The Alternative Synthesis of Isoquinoline Nucleus Using the Thermal Electrocyclic Reaction of 1-Azahexa-1,3,5-triene System. **275.**
Hills, Susan J., See **Ashton**, Michael J., **1015.**
Hirama, Masahiro and **Itô**, Shô. Asymmetric Induction in the Intramolecular Conjugate Addition of γ- or δ-Carbamoyloxy-α,β-unsaturated Esters. A New Method for Diastereoselective Amination and Divergent Syntheses of 3-Amino-2,3,6-trideoxyhexoses. **1229.**
Hiroya, Kou, See **Shishido**, Kozo, **39.**
Hodgson, Derek J., See **Eliel**, Ernest L., **937.**
Holder, Andrew J., See **Dewar**, Michael J. S., **1135.**

Holdgrün, X., See **Reetz**, M. T., **707.**
Holzapfel, Cedric W., **Engelbrecht**, Gerhardus J., and **Verdoorn**, Gerhard H. The Facile Conversion of Pyranoid Glycals into 2-Deoxy-glycosidic Orthoesters. **433.**
Honda, Toshio, See **Kametani**, Tetsuji, **59.**
Hongo, Hiroshi, See **Tomisawa**, Hiroshi, **51.**
Horiki, Kusuo and **Murakami**, Atsuko. A Remarkable Catalytic Effect of the Potassium Salt of 1-Hydroxybenzotriazole on Peptide Bond Formation. **615.**
Houge-Frydrych, Catherine S.V., **Motherwell**, William B., and **O'Shea**, Dennis M. Controlled Annulation Reactions of 3-Methyl-4-oxo-1-thiacyclopent-2-ene-1,1-dioxide : A Useful Isoprenoidal Synthon. **603.**
Huang, Shyl-Pyng, See **Kutney**, James Peter, **565.**
Hünig, Siegfried and **Wehner**, Ingeborg. Two Step Redox Systems LII : 2,2'-Bipyridylboronium Salts. **359.**
Husek, Aleš, **Sütlüpinar**, Nurhayat, **Sedmera**, Petr, and **Šimánek**, Vilím. Baytopine, a New Homoaporphine Alkaloid. **79.**

I

Ibrahim, Ibrahim Halim, See **Engel**, Ch. R., **905.**
Ihara, Masataka, **Takino**, Yoshinobu, **Fukumoto**, Keiichiro, and **Kametani**, Tetsuji. Enantioselective Synthesis of Naturally Occurring (-)-Tylophorine by Way of an Asymmetric Intramolecular Double Michael Reaction. **63.**
Ikeda, Yoshiya, See **Sato**, Eisuke, **117.**
Ikegami, Shiro, See **Torisawa**, Yasuhiro, **729.**
Inada, Akira, **Konishi**, Mari,and **Nakanishi**, Tsutomu. Phytochemical Studies on Meliaceous Plants. V. Structure of a New Apotirucallane-Type Triterpene, 21-*O*-Methyltoosendanpentol from Fruits of *Melia toosendan* Sieb. et Zucc. **383.**
Incze, Mária, See **Kardos-Balogh**, Zsuzsanna, **303.**
Irgolic, Kurt J., See **Junk**, Thomas, **1007.**
Ishikawa, Sumio, See **Nozoe**, Tetsuo, **733.**
Islam, Md. Azizul, See **Freer**, Andrew A., **147.**
Ito, Keiichi, See **Nagasawa**, Kazuo, **703.**
Itô, Shô, See **Hirama**, Masahiro, **1229.**

J

Jain, Sudha, See **Bhakuni**, Dewan S., **315.**
Jakupovic, Jasmin, See **Campos**, Verônica, **779.**
Janousek, Zdenek, See **Guillot**, Nadine, **879.**
Janowski, Wit K., See **Chiefari**, John, **863.**
Jansen, Johannes R., See **Bringmann**, Gerhard, **137.**
Jefford, Charles W., **Rossier**, Jean-Claude, and **Boukouvalas**, John. 1,2,4-Trioxanes as Masked, Dual Purpose, Functional Groups. **673.**
Jentzer, Olivier, See **Crozet**, Michel P., **849.**
Johnston, Blair D., See **Pinto**, B. Mario, **389.**
Jones, Michael W., See **Harding**, Kenn E., **663.**
Jones, Stella S., See **Nickon**, Alex, **187.**
Julia, Marc, **Rolando**, Christian, **Vincent**, Emmanuel, and **Xu**, Jin Zhu. Studies towards the Synthesis of Fredericamycin A. **71.**
Jung, Michael E., **Blum**, Roberto B., **Gaede**, Bruce J., and **Gisler**, Matthias R. Preparation and Diels-Alder Cycloadditions of Substituted Vinylene Carbonates(1,3-Dioxol-2-ones) and Related Compounds. **93.**
Junk, Thomas and **Irgolic**, Kurt J. 5-Aza-10-tellura-5,10-dihydroanthracenes (Phenotellurazines). **1007.**

Juranić, Ivan, See **Mihailović**, Mihailo Lj., **869.**

K

Kaftory, Menachem, See **Agmon**, Ilana, **33.**
Kagotani, Masahiro, See **Hanessian**, Stephen, **1115.**
Kajtár-Peredy, Mária, See **Kardos-Balogh**, Zsuzsanna, **303.**
Kalena, Govind P., See **Banerji**, Asoke, **711.**
Kamano, Yoshiaki, See **Pettit**, George R., **553.**
Kametani, Tetsuji, **Tsubuki**, Masayoshi, and **Honda**, Toshio. Stereocontrolled Synthesis of the Withanolide D Side Chain from 20-Oxosteroid. **59.**
Kametani, Tetsuji, See **Shishido**, Kozo, **39,43** ; **Ihara**, Masataka, **63.**
Kanaoka, Yuichi, See **Sato**, Eisuke, **117.**
Kang, Tae Won, See **Baldwin**, Jack E., **759.**
Kardos-Balogh, Zsuzsanna, **Sóti**, Ferenc, **Incze**, Mária, **Kajtár-Peredy**, Mária, **Radics**, Lajos, and **Szántay**, Csaba. Synthesis of Vinca Alkaloids and Related Compounds. XLIII. Unexpected Rearrangement of 3-Acylindolenines. **303.**
Katritzky, Alan R. and **Yannakopoulou**, Konstantina. The Chemistry of *N*-Substituted Benzotriazoles. Part 18. A Study of the Influence of Structure on the 1- to 2-(*N,N*-Dialkylaminoalkyl)benzotriazole Equilibrium. **1121.**
Katsuta, Sachiko, See **Aoyama**, Toyohiko, **133.**
Kauffmann, Elisabeth, See **Frost**, Jonathan R., **175.**
Kawada, Kenji and **Tsushima**, Tadahiko. Synthesis of Monocyclic Analogues of a Potent Thromboxane Receptor Antagonist, (±)-(5*Z*)-7-[3-*endo*-[(Phenylsulfonyl)amino]bicyclo[2.2.1]hept-2-*exo*-yl]heptenoic Acid (S-145). **573.**
Kawai, J., See **Khadem**, H. S. EI, **239.**
Keirs, David and **Overton**, Karl. Stereocontrolled Syntheses of Aspartame[(*S*)-Asp-(*S*)-PhOMe] and Its (*R*)-Aspartyl Congener [(*R*)-Asp-(*S*)-PhOMe] *via* Nitrone Cycloaddition. **841.**
Kenny, Peter M., See **Donnelly**, Dervilla M. X., **411.**
Khadem, H. S. El, **Kawai**, J., and **Swartz**, D. L. Synthesis and Rearrangements of Imidazolo- and Triazolo-diazines. **239.**
Kiguchi, Toshiko, **Kuninobu**, Naoko, **Naito**, Takeaki, and **Ninomiya**, Ichiya. A Novel Synthesis of (±)-Isochanoclavine-I. **19.**
Kikuchi, Osamu, See **Togo**, Hideo, **373.**
Kim, Chung Sook, See **Magnus**, Philip, **951.**
King, Lionel G., See **Baldwin**, Jack E., **759.**
Kirby, Gordon W., See **Freer**, Andrew A., **147.**
Kizu, Haruhisa, See **Pettit**, George R., **553.**
Kjær, Anders and **Skrydstrup**, Troels. Synthesis of 2-Oxazolidineselones. **269.**
Komaglou, Kossı, See **Hanessian**, Stephen, **1115.**
Komatsu, Hironori, See **Shishido**, Kozo, **43.**
Konishi, Mari, See **Inada**, Akira, **383.**
Korte, Friedhelm, See **Bieniek**, Dieter, **719.**
Krief, A., **Dumont**, W., **Ende**, D. Van, **Halazy**, S., **Labar**, D., **Laboureur**, J.-L., and **Lê**, T.Q. Original Syntheses of Epoxides Involving Organoselenium Intermediates. **1203.**
Kulanthaivel, Palaniappan, See **Pelletier**, S. William, **107.**
Kuninobu, Naoko, See **Kiguchi**, Toshiko, **19.**
Kurobe, Hiroshi, See **Kutney**, James Peter, **565.**
Kutney, James Peter, **Lopez**, Francisco Javier, **Huang**, Shyl-Pyng, and **Kurobe**, Hiroshi. A General Approach to the Total Synthesis of Yuehchukene and its Analogues. A Novel Anti-implantation Agent. **565.**
Kuwahara, Shigefumi and **Mori**, Kenji. A New Stereoselective Synthesis of (−)-Periplanone-B. **167.**

L

Labar, D., See **Krief**, A., **1203.**
Laboureur, J. -L., See **Krief**, A., **1203.**
Ladlow, Mark, See **Magnus**, Philip, **951.**
Lang, Marc, See **Capraro**, Hans-Georg, **643.**
Lange, Walter, **Haas**, Wilhelm, **Schmickler**, Hans, and **Vogel**, Emanuel. 4,9-Methano-1*H*-aza[11]annulene : A 12π-Homologue of Pyrrole. **633.**
Lê, T.Q., See **Krief**, A., **1203.**
Leban, Ivan, See **Stanovnik**, Branko, **259.**
Leet, John E., See **Pettit**, George R., **213.**
Leete, Edward. 1-Methylpyrrolidine-2-acetic Acid, a Plausible Intermediate in the Biosynthesis of Cocaine. **481.**
Lenz, Jürgen, See **Guang-yi**, Li, **899.**
Lessard, Jean, See **Côté**, Roland, **987.**
Ley, Steven V., See **Brown**, Dearg S., **773.**
Liang, Xiao-Tian, See **Shang**, Xiao, **421.**
Lin, Paul V. S. Kong Thoo, See **Buchan**, Robert, **857.**
Liu, Y.-T., See **Ganguly**, A. K., **83.**
Lobo, Ana M., See **Almeida**, Paulo S., **653.**
Lopez, Francisco Javier, See **Kutney**, James Peter. **565.**
Lora-Tamayo, Manuel, See **Contreras**, Fernando Gómez, **791.**
Lorenc, Ljubinka, See **Mihailović**, Mihailo Lj., **869.**
Loyaux, Denis, See **Frost**, Jonathan R., **175.**

M

Magnus, Philip, **Ladlow**, Mark, **Kim**, Chung Sook, and **Boniface** Peter. Use of the Barton Decarboxylation Procedure in Indole Alkaloid Chemistry. **951.**
Mah, Robert, See **Stork**, Gilbert, **723.**
Mahajan, Mohinder P., See **Freer**, Andrew A., **147.**
Mansilla, H., See **González**, Antonio G., **529.**
Marquardt, Donald J., See **Newcomb**, Martin, **129.**
Mestre, François, **Tailhan**, Catherine, and **Zard**, Samir Z. Xanthates as a Source of Stabilised Carbon Centered Radicals Using Visible Light. **171.**
Meyers, A. I. and **Guiles**, Joseph. The Asymmetric Total Synthesis of (+)-Reticuline. **295.**
Michalska, Maria and **Michalski**, Jan. Glycosyl Thio-, Seleno- and Tellurophosphates. **1249.**
Michalski, Jan, See **Michalska**, Maria, **1249.**
Mihailović, Mihailo Lj., **Lorenc**, Ljubinka, **Rajković**, Milica, **Juranić**, Ivan, and **Milovanović**, Aleksandar. New Types of Steroidal Isoxazolidines. **869.**
Milovanović, Aleksandar, See **Mihailović**, Mihailo Lj., **869.**
Mininsci, Francesco, **Vismara**, Elena, and **Fontana**, Francesca. Recent Developments of Free-Radical Substitutions of Heteroaromatic Bases. **489.**
Misawa, Yoshihisa, See **Akasaka**, Takeshi, **445.**
Miyagawa, Yoko, See **Hano**, Yoshio, **745.**
Moeller, Kevin D., See **Trost**, Barry M., **321.**
Mohammed, Ali Y., See **Clive**, Derrick L. J., **1157.**
Moretti, Christian, See **Pettit**, George R., **213.**
Mori, Kenji, See **Kuwahara**, Shigefumi, **167.**

Morrison, George A., **Sammes**, Peter G., and **Simmonds**, James P. Formation of 2,2-Spiro-substituted 2,3-Dihydrobenzofurans. **1037.**
Morton, J., See **Ganguly**, A.K., **83.**
Morzycki, Jacek W. and **Mudź**, Jolanta. Des-AB-steroids by a New Method of Cholesterol Degradation. **75.**
Motherwell, William B., See **Houge-Frydrych**, Catherine S. V., **603.**
Mudź, Jolanta, See **Morzycki**, Jacek W., **75.**
Muller, Raffaello, See **Agmon**, Ilana, **33.**
Mukherjee, Debabrata, See **Engel**, Ch. R., **905.**
Murakami, Atsuko, See **Horiki**, Kusuo, **615.**
Muzaffar, Anjum, **Chrzanowska**, Maria, and **Brossi**, Arnold. Phenolic Congeners of Colchicine : Preparation and Characterization of Phenolic and Catecholic Analogues of Colchicine, Colchiceine and Thiocolchicine. **365.**

N

Nagai, Ukon and **Pavone**, Vincenzo. Preparation of All the Four Diastereomers of β-Phenylcysteine Methyl Ester through Chromatographic Optical Resolution of the 2,2-Dimethylthiazolidine Derivatives. **589.**
Nagasawa, Kazuo and **Ito**, Keiichi. A Cerium Metal-mediated Coumarin Synthesis. **703.**
Nagata, Wataru, See **Aoki**, Tsutomu, **687.**
Nagelkerke, Ruby, See **Pinto**, B. Mario, **389.**
Naito, Takeaki, See **Kiguchi**, Toshiko, **19.**
Nakanishi, Tsutomu, See **Inada**, Akira, **383.**
Nakano, Hiroto, See **Tomisawa**, Hiroshi, **51.**
Negishi, Ei-ichi, **Nguyen**, Thinh, **O'Connor**, Brian, **Evans**, Jeffrey M., and **Silveira**, Jr, Augustine. Synthesis of Benzofurans, Tetrahydrobenzopyrans, and Related Cyclic Ethers *via* Cyclic Carbopalladation. **55.**
Newcomb, Martin and **Marquardt**, Donald J. *N*-Hydroxypyridine-2-thione Carbamates as Aminium Radical Cation Precursors. Transannular Radical Cyclizations Forming Tropanes. **129.**
Newton, Christopher G., See **Ashton**, Michael J., **1015.**
Nguyen, Thinh, See **Negishi**, Ei-ichi, **55.**
Nickon, Alex, **Jones**, Stella S., and **Parkhill**, Billy J. Absence of Heteroatom Kinetic Effects in π-Routes to Carbocations. **187.**
Nicoletti, Marcello, See **Garbarino**, Juan A., **697.**
Nieman, Ronald A., See **Pettit**, George R., **553.**
Ninomiya, Ichiya, See **Kiguchi**, Toshiko, **19.**
Njar, Vincent C. O., **Spiteller**, Gerhard, **Wicha**, Jerzy, and **Caspi**, Eliahu. Observations on the Preparation of 2β-Hydroxy-19-oxoandrost-4-ene-3,7-dione ; Synthesis of a 2β,19-Oxaandrost-4-ene-3,17-dione. **1051.**
Nomi, Kazuhiko, See **Hibino**, Satoshi, **275.**
Nomura, Taro, See **Hano**, Yoshio, **745.**
Normand, Nadine, See **Frost**, Jonathan R., **175.**
Nozoe, Shigeo, See **Ohta**, Tomihisa, **425.**
Nozoe, Tetsuo, **Ishikawa**, Sumio, and **Shindo**, Kimio. Synthesis and Reactions of 2,3-Dihydrocyclohepta[*b*][1,4]-thiazines and 2,3-Dihydro-1*H*-cyclohepta[*b*]pyrazines. **733.**

O

Oae, Shigeru, **Takeda**, Takashi, and **Wakabayashi**, Shoji. Formation of Phenyl Substituted Heteroaromatics by Ligand Coupling in the Reaction between Heteroaryl Sulfoxides with Phenyl Grignard Reagent. **99.**
O'Connor, Brian, See **Negishi**, Ei-ichi, **55.**
Ohta, Tomihisa, **Tabei**, Nobuaki, and **Nozoe**, Shigeo. Synthesis of (*R*)-(−)- and (2*R*,3*R*)-(−)-[2-^{2}H]-Mevalonolactones. **425.**

Olsen, John D., See **Pelletier**, S. William, **107.**
Olefirowicz, Edward M., See **Eliel**, Ernest L., **937.**
O'Shea, Dennis M., See **Houge-Frydrych**, Catherine S. V., **603.**
Ouerfelli, Ouathek, See **Ficini**, Jacqueline, **547.**
Overton, Karl, See **Keirs**, David, **841.**

P

Parkes, Harold G., See **Alkubaisi**, Abdulla H., **347.**
Parkhill, Billy J., See **Nickon**, Alex, **187.**
Patel, Vipulkumar K., See **Baldwin**, Jack E., **759.**
Pavone, Vincenzo, See **Nagai**, Ukon, **589.**
Pederson, Richard L. and **Wong**, Chi-Huey. Enzymatic Aldol Condensation as a Route to Heterocycles : Synthesis of 1,4-Dideoxy-1,4-imino-D-arabinitol, Fagomine, 1-Deoxynojirimycin and 1-Deoxymannojirimycin. **477.**
Pelletier, S. William, **Kulanthaivel**, Palaniappan, and **Olsen**, John D. New Alkaloids from *Delphinium andersonii* Gray. **107.**
Pennington, William, See **Abramovitch**, Rudolph A., **623.**
Petry, Geneviève, See **Frost** Jonathan, R., **175.**
Pettit, George R., **Riesen**, Roland, **Leet**, John E., **Polonsky**, Judith, **Smith**, Cecil R., **Schmidt**, Jean M., **Dufresne**, Claude, **Schaufelberger**, Daniel, and **Moretti**, Christian. Isolation and Structure of Rolliniastatin 2 : a New Cell Growth Inhibitory Acetogenin from *Rollinia mucosa*. **213.**
Pettit, George R., **Kamano**, Yoshiaki, **Kizu**, Haruhisa, **Dufresne**, Claude, **Herald**, Cherry L., **Bontems**, Roger J., **Schmidt**, Jean M., **Boettner**, Fred E., and **Nieman**, Ronald A. Isolation and Structure of the Cell Growth Inhibitory Depsipeptides Dolastatins 11 and 12. **553.**
Pfleiderer, Wolfgang. Synthesis and Properties of Unusually Stable, Heterocyclic Nitrilium Ylides. **203.**
Philipsborn, Wolfgang von, See **Agmon**, Ilana, **33.**
Pinto, B. Mario, **Johnston**, Blair D., and **Nagelkerke**, Ruby. The Third Row Anomeric Effect. Conformational Analysis of 2-Phenylthio- and 2-Phenylseleno-1,3-diselenanes. **389.**
Piozzi, Franco, See **Simões**, Fatima, **111.**
Poirier, Philippe, See **Frost**, Jonathan R., **175.**
Polonsky, Judith, See **Pettit**, George R., **213** ; **Donnelly**, Dervilla M. X., **411.**
Potier, Marie-Claude, See **Dodd**, Robert H., **1101.**
Potier, Pierre, See **Cabezas**, Nieves, **607** ; **Dodd**, Robert H., **1101.**
Poulton, Gerald Arthur, See **Boulet**, Camille André, **405.**
Poyser, J. Philip, See **Acton**, David G., **657.**
Phabhakar, Sundaresan, See **Almeida**, Paulo S., **653.**
Pradhan, Suresh K., **Akamanchi**, Krishnacharya G., **Divakaran**, Pulukkunatt P., and **Pradhan**, Prakash M. Unusual Reactions of Steroidal and Non-steroidal 1,5-Dioximes. Stereochemistry and Mechanism of Formation of *N*-Hydroxypiperidine Analogues. **813.**
Pradhan, Prakash M., See **Pradhan**, Suresh K., **813.**
Prager, Rolf H., See **Chiefari**, John, **863.**
Pramanik, B., See **Ganguly**, A. K., **83.**
Prangé, Thierry, See **Donnelly**, Dervilla M. X., **411.**
Prasad, J. V. N. Vara, See **Brown**, Herbert C., **283.**
Prelle, Annette and **Winterfeldt**, Ekkehard. From Steroids to Macrolides. **333.**
Pyatt, Dirk, See **Davies**, Stephen G., **163.**

Q

Qureshi, M. Munawer, See **Gunatilaka**, A. A. Leslie, **999.**

R

Radics, Lajos, See **Kardos-Balogh**, Zsuzsanna, **303.**
Rajković, Milica, See **Mihailović**, Mihailo Lj., **869.**
Raju, Vegesna S. N., See **Rao**, Ch. Bheemasankara, **103.**
Rangaishenvi, Milind V., See **Brown**, Herbert C., **283.**
Rao, D. Venkata, See **Rao**, Ch. Bheemasankara, **103.**
Rao, Ch. Bheemasankara, **Rao**, D. Venkata, **Raju**, Vegesna S. N., **Sullivan**, Brian W., and **Faulkner**, D. John. Two New Alkaloids from an Indian Species of *Zoanthus*. **103.**
Reddy, Narreddi Sivasankara, See **Chandrasekhar**, Vadapalli, **611.**
Reetz, M. T., **Reif**, W., and **Holdgrün**, X. Stereoselective Addition of Lithiated Heterocycles to Chiral α-Amino Aldehydes. **707.**
Reif, W., See **Reetz** M.T., **707.**
Riesen, Roland, See **Pettit**, George R., **213.**
Ritchie, Timothy J., See **Crich**, David, **67.**
Robins, David J., See **Brooks**, Charles J.W., **151.**
Rodriguez, Benjamin, See **Simões**, Fatima, **111.**
Rogers, Kevin J., See **Acton**, David G., **657.**
Rolando, Christian, See **Julia**, Marc, **71.**
Rossier, Jean, See **Dodd**, Robert H., **1101**
Rossier, Jean-Claude, See **Jefford**, Charles W., **673.**
Roszak, Aleksander W., See **Back**, Thomas G., **219.**
Rozen, Shlomo and **Hebel**, David. Oxygenation of the Unactivated Pyridine System by Acetyl Hypofluorite Made Directly from F_2. **249.**
Russell, Glen A., **Guo**, Deliang, **Baik**, Woonphil, and **Herron**, S. J. Alkylations of Heterocycles by Alkylmercurials. **143.**

S

Salvi, Vilas Shivram, See **Engel,** Ch. R., **905.**
Salzmann, Thomas N., See **Greenlee**, Mark L., **195.**
Sammes, Peter G., See **Morrison**, George A., **1037.**
Sanjivamurthy, A. R. Vinutha, See **Abramovitch**, Rudolph A., **623.**
Sanz, Ana M^a, See **Contreras**, Fernando Gómez, **791.**
Sarre, O., See **Ganguly**, A.K., **83.**
Sasaki, Tadashi, See **Eguchi**, Shoji, **125.**
Sato, Eisuke, **Ikeda**, Yoshiya, and **Kanaoka**, Yuichi. Photoaddition of 2-Pyridones to Conjugated Dienes. **117.**
Sato, Kohichi, See **Hibino**, Satoshi, **275.**
Satoh, Katsumi, See **Torisawa**, Yasuhiro, **729.**
Savona, Giuseppe, See **Simões**, Fatima, **111.**
Schäfer, Hans J. and **Eilenberg**, Wolf. Oxidative Cyclization of 3-Anilino-cyclohex-2-enones to Tetrahydrocarbazoles. **979.**

Schaufelberger, Daniel, See **Pettit**, George R., **213.**
Schlewer, Gilbert, See **Desos**, Patrice, **1085.**
Schmickler, Hans, See **Lange**, Walter, **633.**
Schmidt, Jean M., See **Pettit**, George R., **213, 553.**
Schneider, Peter, See **Capraro**, Hans-Georg, **643.**
Scott, A. Ian. Applications of Nmr and Molecular Biology in Studies of the Enzyme Mechanisms of Vitamin B_{12} Biosynthesis. **1193.**
Sedmera, Petr, See **Husek**, Aleš, **79.**
Serebryakov, Edward P., See **El'perina**, Elizabeth A., **805.**
Shafirovich, Vladimir Ya., See **Geletii**, Yurii V., **677.**
Shang, Xiao, **He**, Cun-Heng, **Zheng**, Qi-Tai, **Yang**, Jing-Jing, and **Liang**, Xiao-Tian. Chemical Transformations of Qinghaosu, a Peroxidic Antimalarial, II. **421.**
Shaw, Robert A., See **Alkubaisi**, Abdulla H., **347.**
Shih, Chuan, See **Taylor**, Edward C., **1169.**
Shilov, Alexander E., See **Geletii**, Yurii V., **677.**
Shin, Hee-Sook, See **Wolfe**, Saul, **639.**
Shindo, Kimio, See **Nozoe**, Tetsuo, **733.**
Shioiri, Takayuki. Professor Sir Derek H. R. Barton and Heterocycles. **1.**
Shioiri, Takayuki, See **Aoyama**, Toyohiko, **133.**
Shishido, Kozo, **Hiroya**, Kou, **Fukumoto**, Keiichiro, and **Kametani**, Tetsuji. A Convenient Access to 3,4-Disubstituted Isoquinolines from Benzocyclobutenyl Ketoximes. **39.**
Shishido, Kozo, **Komatsu**, Hironori, **Fukumoto**, Keiichiro, and **Kametani**, Tetsuji. A Synthetic Approach to (±)-Vindoline. **43.**
Silva, Mario, See **Campos**, Verónica, **779.**
Silveira, Jr., Augustine, See **Negishi**, Ei-ichi, **55.**
Šimánek, Vilím, See **Husek**, Aleš, **79.**
Simmonds, James P., See **Morrison**, George A., **1037.**
Simões, Fatima, **Rodriguez**, Benjamin, **Piozzi**, Franco, **Savona**, Giuseppe, **Bruno**, Maurizio, and **Arnold**, Nelly Apostolides. Isoteucrin H_4, a 19-Nor-neoclerodane Diterpenoid of Biogenetic Interest from *Teucrium kotschyanum*. **111.**
Singh, Meenakshi, See **Bhakuni**, Dewan S., **315.**
Skrydstrup, Troels, See **Kjær**, Anders, **269.**
Smith, Cecil R., See **Pettit**, George R., **213.**
Snatzke, Günther, See **Hajós**, György, **783.**
Sohn, Chang-Kook, See **Wolfe**, Saul, **639.**
Sőti, Ferenc, See **Kardos-Balogh**, Zsuzsanna, **303.**
Spiteller, Gerhard, See **Njar**, Vincent C. O., **1051.**
Spöndlin, Christoph and **Tamm**, Christoph. Biosynthetic Studies on the Chaetoglobosins K and L. Origin of the Extra Methyl Groups at C(10) and C(11). **453.**
Stanovnik, Branko, **Habjan**, Gorazd, **Tišler**, Miha, **Golič**, Ljubo, and **Leban**, Ivan. 1,3-Dipolar Cycloadditions of Diazoalkanes to Heteroaromatic Systems. The Synthesis of Triazolo[4,3-*b*][1,2]diazepine and Cyclopropa[*e*]-pyrazolo[4,3-*c*]azolo[1,5-*a*]pyridine Derivatives. **259.**
Stenson, Paul H., See **Donnelly**, Dervilla M. X., **15.**
Steynberg, Jan P., **Burger**, Johann F.W., **Young**, Desmond A., **Brandt**, Edward V., and **Ferreira**, Daneel. Oligomeric Flavanoids. Part 6. Evidence Supporting the Inversion of Absolute Configuration at 3-C Associated with Base Catalyzed A-/B-Ring Interchange of Precursors having 2,3-*trans*-3,4-*cis*-Flavan-3-ol Constituent Units. **923.**
Stirling, Charles J. M., See **Griffiths**, Gwerydd, **89.**
Stork, Gilbert and **Mah**, Robert. Radical Cyclization of Allylic Haloacetamides. A Route to *cis*-Fused 2-Pyrrolidones and Piperidones. **723.**
Strelets, Vladimir Ya., See **Geletii**, Yurii V., **677.**
Strope, Douglas, See **Sussangkarn**, Kawporn, **467.**
Struchkova, Marina I., See **El'perina**, Elizabeth A., **805.**
Stuessy, Tod, See **Campos**, Verónica, **779.**

Sugino, Eiichi, See **Hibino**, Satoshi, **275.**
Sullivan, Brian W., See **Rao**, Ch. Bheemasankara, **103.**
Sussangkarn, Kawporn, **Fodor**, Gabor, **Strope**, Douglas, and **George**, Clifford. New Furo[3,2-*b*]furans Derived from L-Ascorbic Acid. **467.**
Sütlüpinar, Nurhayat, See **Husek**, Aleš, **79.**
Swartz, D. L., See **Khadem**, H. S. El, **239.**
Szántay, Csaba, See **Kardos-Balogh**, Zsuzsanna, **303.**
Szilágyi, László, See **Herczegh**, Pál, **887.**
Szöghy, Robert, See **Engel**, Ch. R., **905.**

T

Tabei, Nobuaki, See **Ohta**, Tomihisa, **425.**
Tailhan, Catherine, See **Mestre**, François, **171.**
Takeda, Takashi, See **Oae**, Shigeru, **99.**
Takeuchi, Kikuko, See **Akasaka**, Takeshi, **445.**
Takino, Yoshinobu, See **Ihara**, Masataka, **63.**
Taljaard, Benjamin, See **Coombes**, Philip, **559.**
Tamm, Christoph, See **Spöndlin**, Christoph, **453.**
Taylor, Edward C., **Harrington**, Philip M., and **Shih**, Chuan. A Facile Route to "Open Chain" Analogues of DDATHF. **1169.**
Taylor, John B., See **Ashton**, Michael J., **1015.**
Teutsch, Georges, See **Aszodi**, Jozsef, **1061.**
Thérien, Michel, See **Young**, Robert N., **967.**
Thierry, Josiane, See **Cabezas**, Nieves, **607.**
Tišler, Miha, See **Stanovnik**, Branko, **259.**
Togo, Hideo and **Kikuchi**, Osamu. The Reactions of Allyl o-Bromoaryl Ethers, *N*-Allyl o-Bromoacetanilide, and Related Compounds with Tributyltin Hydride in the Presence of Activated Olefins. **373.**
Tomisawa, Hiroshi, **Nakano**, Hiroto, and **Hongo**, Hiroshi. A Synthesis of a New-Type Heterocyclic Compound by Using Diels-Alder Reaction of 2-Methylene-1,2-dihydropyridine Derivative. **51.**
Tondu, Sylvie C. D., See **Ashton**, Michael J., **1015.**
Torisawa, Yasuhiro, **Satoh**, Katsumi, and **Ikegami**, Shiro. Synthesis of a Novel Furan-Containing Tricyclic Prostacyclin Analogue. **729.**
Towle, Debra K., See **Eliel**, Ernest L., **937.**
Tran, Trung Q., See **Cheung**, H. T. Andrew, **751.**
Trost, Barry M. and **Moeller**, Kevin D. A [3+2]Cycloaddition Strategy to the Phyllanthocin Ring System. **321.**
Tsubuki, Masayoshi, See **Kametani**, Tetsuji, **59.**
Tsushima, Tadahiko, See **Kawada**, Kenji, **573.**

U

Urbach, Hansjoerg and **Henning**, Rainer. Enantioselective Synthesis of 1*S*,3*S*,5*S*-and 1*R*,3*S*,5*R*-2-Azabicyclo[3.3.0]-octane-3-carboxylic Acid Starting from L-Serine. **957.**

V

Vanelle, Patrice, See **Crozet**, Michel P., **849.**

Verdoorn, Gerhard H., See **Holzapfel**, Cedric W., **433.**
Viehe, Heinz G., See **Guillot**, Nadine, **879.**
Vincent, Emmanuel, See **Julia**, Marc, **71.**
Vismara, Elena, See **Minisci**, Francesco, **489.**
Vogel, Emanuel, See **Lange**, Walter, **633.**

W

Waegell, Bernard, See **Côté**, Roland, **987.**
Wähälä, K. and **Hase**, T. A. Hydrogen Transfer Reduction of Isoflavones. **183.**
Wakabayashi, Shoji, See **Oae**, Shigeru, **99.**
Wang, Yu and **Chen**, Yao-Quan. Reactions of *N*-Acylimidazole with Nucleosides and Nucleotides. **593.**
Wasserman, Harry H., **Dion**, Robert P., and **Fukuyama**, James M. Rearrangement of 1-Piperidinocyclopropyl Ketimines. A Synthesis of 2-Substituted Pyrroles. **629.**
Wehner, Ingeborg, See **Hünig**, Siegfried, **359.**
Wenkert, Ernest, See **Frost**, Jonathan R., **175.**
Wermuth, Camille Georges, See **Zinoune**, Abdallah, **1077** ; **Desos**, Patrice, **1085.**
Wicha, Jerzy, See **Njar**, Vincent C. O., **1051.**
Wick, Alexander E., See **Frost**, Jonathan R., **175.**
Winterfeldt, Ekkehard, See **Prelle**, Annette, **333.**
Wolfe, Saul, **Yang**, Kiyull, **Bowers**, Raymond John, **Shin**, Hee-Sook, and **Sohn**, Chang-Kook. Mechanism of Action of a Biomimetic Phenytoin Receptor. **639.**
Wong, Chi-Huey, See **Pederson**, Richard L., **477.**

X

Xiaohua, He, See **Abramovitch**, Rudolph A., **623.**
Xu, Jin Zhu, See **Julia**, Marc, **71.**

Y

Yang, Jing-Jing, See **Shang**, Xiao, **421.**
Yang, Kiyull, See **Wolfe**, Saul, **639.**
Yannakopoulou, Konstantina, See **Katritzky**, Alan R., **1121.**
Yano, Mamiko, See **Hano**, Yoshio, **745.**
Young, Desmond A., See **Steynberg**, Jan P., **923.**
Young, Robert N., **Gauthier**, Jacques Yves, **Thérien**, Michel, and **Zamboni**, Robert. Asymmetric Dithioacetals III : The Preparation of the Enantiomers of 3-((((3-(2-(7-Chloroquinolin-2-yl)-(*E*)-ethenyl)phenyl)-3-dimethylamino-3-oxopropylthio)methyl)thio)propionic Acid (L-660,711) (MK-571), an Antagonist of Leukotriene D_4. **967.**

Z

Zamboni, Robert, See **Young**, Robert N., **967.**
Zard, Samir Z., See **Mestre**, François, **171.**
Zheng, Qi-Tai, See **Shang**, Xiao, **421.**

Zinoune, Abdallah, **Bourguignon**, Jean-Jacques, and **Wermuth**, Camille-Georges. Aminoalkylation of Aldehydes with Glyoxal *N*, *N*-Dimethylmonohydrazone Yields Stable 4-Substituted Pyrrolin-3-ones. **1077.**
Zsély, Martina, See **Herczegh**, Pál, **887.**

A

Aberrant Biosynthesis **315**
Acetal Homologue **673**
Acetogenin **213**
Acetoxylation **249**
Acetyl Hypofluorite **249**
Acetylation **303**
Acetylchromene **711**
Acetylenic Dipolarophile **125**
14-Acetylnudicaulidine **107**
N-Acetyltryptamine **175**
Activation Barrier **1121**
Acyl Migration **303**
Acyl Radical **583**
Acylation **593**
N-Acylimidazole **593**
3-Acylindolenine **303**
3-Acylindoline **303**
Acylmethotrexate **751**
2-L-Alanylmethotrexate **751**
Albanol B **745**
Aldohexose **209**
Aldolase **477**
Alkenylaryl Radical **373**
2-Alkenylbenzaldoxime **275**
Alkoxycarbonyl Radical **579**
Alkylation *via* Oxime Dianion **573**
2-Alkylpyrimidylpenem **643**
Aluminium Trichloride **773**
Amidomercuration **663**
Amination **623**
Aminium Cation Radical **129**
Amino Acid **29**
α-Amino Acid **707**
Amino Alcohol **663**
α-Amino Carbanion **295**
7β-Amino-1-oxacephem **687**
7β-Amino-1-thiacephem **687**
3-Amino-2,3,6-trideoxyhexose **1229**
Aminoalkylation **1077**
7-Aminocephalosporanic Acid **657**
Andersonidine **107**
3-Anilino-cyclohex-2-enone **979**
Annulene **33**
Anodic Oxidation **979**
Anomeric Conformation Prediction **767**
Ansa Compound **333**
Anti-implantation Compound **565**
Antibiotics 13-384 **83**
Anticonvulsant **639**
Antithrombotic **1085**
Antitumor Steroid **59**
Apocynaceae **999**
Apotirucallane-type Triterpenoid **383**
Arene **623**
Aromatic Energy **1135**
Aromaticity **1135**
Arteannuin **421**
Aryl Aryl Coupling **137**
9-Aryl-9-xanthenyl Azide **559**
Arylation **15**
11-Aryldibenzo[*b, f*][1,4]oxazepine **559**
4-Arylflavan-3-ol **923**
(5*Z*)-7-(2-Arylsulfonylaminocycloalkan-1-yl)heptenoic Acid **573**
Ascorbic Acid **467**
Asnipyrone **899**
Aspartame **841**
Aspergillus niger **899**
Asymmetric Induction **1229**
Asymmetric Synthesis **425**
Atropisomer-selective Biaryl Synthesis **137**
Autoxidation **745**
17-Aza-D-homoestrone **219**
5-Aza-10-tellura-5,10-dihydroanthracene **1007**
Azabicyclic Ketone **29**
(1*R*,3*S*,5*R*)-2-Azabicyclo[3.3.0]octane-3-carboxylic Acid **957**
(1*S*,3*S*,5*S*)-2-Azabicyclo[3.3.0]octane-3-carboxylic Acid **957**
Azacyanine Thermolysis **879**
16-Azaestrone **219**
1-Azahexa-1,3,5-triene **275**
4-Azahomoadamantano[4,5-*a*]pyrrole **125**
6-Azaindole **1101**
Azasteroid **219**
Azatricyclic Ketone **987**
2-Azatricyclo[5.2.2.0^{2,6}]undecane **51**
Azetidinone **195**
7-Azido-lumazine **203**
Aziridine **1179**

B

Baeyer-Villiger Lactonisation **333**
Barton Radical Decarboxylation **951**
Base-catalyzed Cyclization **729**
Baytopine **79**
Benzeneseleninic Anhydride **411**
Benzimidazolinone **653**

Benzocyclobutene **43**
Benzocyclobutenyl Ketoxime **39**
1,4-Benzodiazepine **1101**
Benzodipyran **711**
Benzofuran **55**
Benzo[*a*]phenotellurazine **1007**
Bicyclo-oxazine **147**
Bignoniaceae **697**
Biosynthesis **453, 481**
2,2′-Bipyridine **359**
10,11-Bis-homochaetoglobosin **453**
Bischler-Napieralski Reaction **175**
Boronium Salt **359**
3-Bromoglaucine **315**

C

^{13}C Labelled 2-Methyltryptamine **175**
Calcitriol **547**
Carbamate Mediated Functionalization **1229**
Carbapenem **195**
Carbocation **187**
Carbohydrate **767**
Carbonyl Addition **703**
Carbonyl Protection Group **673**
Carbonyl Radical Cyclization **67**
Carbopalladation **55**
Cell Growth Inhibitory **213**
Chaetoglobosin K **453**
Chaetoglobosin L **453**
Chilean **697**
Chiral Amine **805**
Chiral Heterocyclic Alcohol **283**
Chiral Heterocyclic Boronate **283**
Chiral Hydroboration **283**
Chiral β-Phenylcysteine **589**
Chlorination **23**
N-Chloro-4-azasteroid **813**
Chloropyruvate **1061**
Cholesterol Degradation **75**
Chroman-4-one **15**
Chromanone **67, 583**
CIDNP(chemically induced dynamic nuclear polarization) **143**
Cine-Substitution **849**
cis-1,2-Diol **673**
Citral **791**
Cocaine **481**
Codeine **163**
Colchiceine **365**
Colchicine **365**
Compositae **779**
Coronand **805**
Cotton Effect **783**
Coumarin **703**
Cummulene Intermediate **729**
9-Cyano-xanthine **203**
Cyanogen **653**
Cyclic Boronate **151**
Cyclic Ether **55**
Cyclic Sulphone-enone **603**
Cyclization **987, 1037, 1157**
Cycloaddition **29, 117, 321, 603, 791**
Cyclofunctionalization **663**
2-Cyclohexene-1,4-dione **467**
Cyclopentannulation **603**
Cyclophosphate **593**
Cyclophosphazene **347, 611**
Cyclopropa[*e*]pyrazolo[4,3-*c*]tetrazolo[1,5-*a*]pyridine **259**
Cyclopropa[*e*]pyrazolo[4,3-*c*]-s-triazolo[1,5-*a*]pyridine **259**
Cyclopropyl Ketimine **629**
Cyclopropyl Ketone **629**
Cytochalasan **453**

D

Dalbergin **411**
Darzens Reaction **1179**
Decarboxylation **863, 1061**
Dechloroalkylation **879**
Dehydrodimerization **121**
Delphinium andersonii **107**
Delta Lactone **579**
3-Demethylthiocolchicine Ester **365**
Dendroserin **779**
Dendroseris neriifolia **779**
Deoxygenation **47**
2-Deoxy-glycoside **433**
β-2-Deoxyglycoside **1249**
Des-AB-steroid **75**
Desilylation **133**
Desulphurisation **759**
Deuterated Mevalonolactone **425**
Diacylnitrenium **623**
2-Dialkylamino-4-chloropyrimidine **879**
1,2-Diaminopropane **611**
Diastereoselective Amination **1229**
Diazaquinone **791**
Diazoalkane **259**
3,8-Dibromoglaucine **315**
Dichloromethyleniminium Chloride **879**
2-Dicyanomethylene-1,2-dihydropyridine **51**
Dieckmann Reaction **1015**
Diels-Alder Reaction **33, 51, 93, 147, 333**

Dienamine **147**
Dienic Terpenoid **791**
Dienophile **93**
2,3-Dihydro-1*H*-cyclohepta[*b*]pyrazine **733**
2,3-Dihydro-1,4-dioxin **521**
Dihydrobenzofuran **1037**
2,3-Dihydrobenzoquinone **467**
2,3-Dihydrocyclohepta[*b*][1,4]thiazine **733**
Dihydropyrazine Chromophore **783**
Dihydroquinolinone **67**
5,6-Diketo-7-methoxy-4-phenylcoumarin **411**
5,8-Diketo-7-methoxy-4-phenylcoumarin **411**
Dimeric Indole Natural Product **565**
2,2-Dimethyl-5-phenylthiazolidine-4-carboxylic Acid **589**
3,7-Dimethyloct-5-ene-1,3,7-triol **425**
Dimroth Rearrangement **239**
1,4-Dioxene **521**
1,5-Dioxime **813**
1,3-Dioxol-2-one **93**
Dioxolane **445**
Dipolar Cycloaddition **125, 1015**
1,3-Dipolar Cycloaddition **259**
Dipyrrolo[1,2-*a* : 2′,1′-*c*]pyrazine **857**
3,4-Disubstituted Isoquinoline **39**
Diterpene **669**
Diterpenoid **111**
Dithioacetal **967**
Dolabella auricularia **553**
Dolastatin 11 **553**
Dolastatin 12 **553**
Drug-receptor Interaction **639**

E

Eccremocarpus **697**
10π-Electrocyclic Processe **633**
Electrocyclic Reaction **39**
Electron Transfer **143**
Electrophilic Radical **143**
Elimination **1115**
Enamide **19**
Enamine **1077**
Enantiomeric Resolution **589**
Enantioselective Synthesis **957**
Endoperoxide **547**
Enolyl Radical **143**
Epoxidation **669**
Epoxide **1203**
4,5-Epoxy-4-azahomoadamantane **125**
Ergot Alkaloid **19**
Erythroxylum coca **481**
Everninomicin **83**

F

FAB-Mass Spectra of Everninomicin **83**
Ferroceneboronate **151**
FK-506 **157**
Flame Retardant **719**
Formamidine **295**
Fragmentation Reaction **19**
Fredericamycin **71**
Free Radical **489**
Free Radical Cyclization **723**
Fungus Metabolite **899**
Furan Ring Formation **729**
Furo[3,2-*b*]furans **467**
Furyl Carbinol **59**

G

Gamma Lactone **579**
gem-Dimethyl Effect **89**
Geraniol **425**
Glycal **433**
Glycosidation **209**
Glycosyl Selenophosphate **1249**
Glycosyl Tellurophosphate **1249**
Glycosyl Thiophosphate **1249**
Glycosylating Reagent **1249**
Glyoxal **1077**

H

α-Halo-amide **723**
Hetero Diels-Alder Reaction **887**
Heteroaromatic **489**
Heteroaryl Sulfoxide **99**
Heteroatom Participation **187**
Heterocyclic Aromaticity **1135**
Heterocyclic Olefin **283**
Heterocyclic Steroid **783**
HMG CoA Reductase **1015**
Homoaporphine Alkaloid **79**
Homologation of Chiral Heterocyclic Boronate **283**
Homolytic Cyclization **579, 583**
Hydrogen Transfer Reduction **183**
Hydroxamic Acid **653**
N-Hydroxy-4-azasteroid **813**
8-Hydroxy-7-methoxy-4-phenylcoumarin **411**
8α-Hydroxyachillin **779**
β-Hydroxyalkylselenide **1203**
β-Hydroxyalkylselenonium Salt **1203**
1-Hydroxybenzotriazole **615**
2-(α-Hydroxybenzyl)thiane Sulfoxide **937**

(R*1,S*2, R*α)-2-(α-Hydroxybenzyl)thiane Sulfoxide 937
Hydroxylamine 653

I

Imidazole 849
Iminium Ion 1121
7-Imino-1-oxa(thia)cephem 687
Immunosuppressant 157
Incineration 719
Indole 951
Indole Alkaloid 999
Intermolecular Radical Reaction 373
Intramolecular Conjugate Addition 1229
Intramolecular Double Michael Reaction 63
Intramolecular Radical Cyclisation 957
Intramolecular Radical Reaction 373
Intramolecular Wittig Reaction 195
Ionisation Equilibrium 1121
Iridoid 697
Isobenzofuranone 405
Isocephem 1061
(±)-Isochanoclavine-I 19
Isochroman-3-one 43
Isocoumarin 71
Isoflavanol 183
Isoflavanone 15, 183
Isoflavone 183
Isoprenoid 603
Isoquinoline 275
Isoquinoline Alkaloid 295
Isoquinolinone 71
Isoquinuclidine 51
Isoretronecanol 607
Isoteucrin H_4 111

K

K-76 1037
Ketenimine 133
Keteniminium Salt 29
β-Keto Ester 703

L

L-660, 711 967
β-Lactam 47, 195, 1061
Lactuceae 779
Leucine Aminopeptidase 751
2-L-Leucylmethotrexate 751
Ligand Coupling 99
Liliaceae 79
Lithiated Heterocycle 707
Lithium Trimethylsilyldiazomethane 133
Litsea glutinosa 315
LTD_4 Antagonist 967

M

D-Mannitol 805
Marine Alkaloid 103
Melia toosendan 383
Meliaceae 383
Menispermaceae 315
Mercury Photosensitization 121
Merenedera 79
α-Metaloalkylselenone 1203
7-Methoxy-7-amino-1-oxacephem 687
7-Methoxy-7-amino-1-thiacephem 687
1-Methyl-Δ^1-pyrrolinium Chloride 481
Methylation 1193
1-Methylpyrrolidine-2-acetic Acid 481
21-*O*-Methyltoosendanpentol 383
3-Methyltryptophan 453
Michael Addition 467
Mitsunobu Reaction 643
MK-571 967
Molecular Modelling 629
Monosaccharide 1,1-Dithiooxalate 887
Monosaccharide *O*-Thioformate 887
Morus Root Bark 745
Mulberrofuran I 745
Mulberrofuran S 745

N

Naphthylisoquinoline Alkaloid 137
Neisosperma oppositifolia 999
Neisosposinine 999
Neoclerodane 111
Nitrene Addition 633
Nitrilium Ylide 203
Nitroalkane Salt 849
Nitrogen Nucleophile 657
5-Nitroimidazole 849
Nitrone Cycloaddition 841
Nitrosocarbonylmethane 147
Nonchelation Controlled Addition 707
Nucleophilic Aromatic Substitution 1037
Nucleoside 593
Nucleotide 593

O

Octahydroindole 1157

Olefin **1157**
Olefin Isomerization with $RhCl_3$ **59**
Oligomeric Flavanoid **923**
Organocerium **703**
Ortho-metallation **405**
Orthoester **433**
Orthosomycin **83, 433**
11-Oxa-1-dehydro-11-deoxycortisol **905**
Oxabicyclo[n.3.0]alkane **321**
Oxacycle **89**
11-Oxaestradiol **905**
11-Oxasteroid **905**
Oxaziridine **125**
Oxazolidine **663**
2-Oxazolidineselone **269**
2-Oxazolidinethione **269**
Oxazoline **405**
Oxetane **117**
Oxidation **677**
Oxidative Cyclization **979**
Oximation **711**
Oxime Reduction **573**
Oxindole Alkaloid **999**
Oxocarbon **93**
Oxy-Cope Rearrangement **167**

P

P388 Lymphocytic Leukemia **213**
Palladium(II) **433**
Palladium Catalysis **321**
Palladium Catalyst **15**
Palladium-phosphine Catalyst **55**
Penicillin **759**
Peptide Ionophore **639**
Peptide Synthesis **615**
Perepoxide **445**
(−)-Periplanone-B **167**
Phenanthroindolizidine Alkaloid **63**
Phenolic Congener of Colchicine **365**
Phenotellurazine **1007**
Phenylpolyene **899**
2-Phenylpyrimidine **99**
2-Phenylquinoline **99**
2-Phenylseleno-1,3-diselenane **389**
Phenylselenocarbonate **579**
2-Phenylthio-1,3-diselenane **389**
Pheromone **167**
Phosphonic Acid Diethyl 2-Aziridinyl Ester **1179**
Phosphonic Acid Diethyl 2-Chloro-2-aziridinyl Ester **1179**
Phosphonic Acid Diethyl 1-Chloromethyl Ester **1179**
Photoaddition **117**
Photolysis **559**
Photooxygenation **445**
Phthalide **405**
Phthalideisoquinoline **863**
1-Phthalimido-2,4,6-triphenylpyridinium **623**
Phyllanthocin Model **321**
Pictet-Spengler Reaction **951**
Piperidine **477, 767**
Piperidine Alkaloid **663**
Piperidinone **1015**
2-Piperidinone **723**
Podand **805**
Propellane **33**
Prophobilinogen Deaminase **1193**
Prostacyclin Analogue **729**
Protected α-Amino Aldehyde **707**
Pteridine-Purine Ring Transformation **203**
Pummerer Reaction **23**
Pummerer's Ketone **147**
Purin-8-yl Nitrilium Ylide **203**
Pyran Rearrangement **923**
Pyrano[1,2]benzisoxazole **711**
Pyrazine Chromophore **783**
Pyridine **249**
Pyridine Activation **249**
Pyridinyl Radical **143**
2-Pyridone **117**
2-Pyridylsulfonate **1115**
Pyrimidine **1169**
Pyrimidyl Derivative **643**
α-Pyrone **899**
Pyrrole **1077**
12π-Pyrrole Homologue **633**
Pyrrole Synthesis **629**
Pyrrolidine **477**
2-Pyrrolidinone **723**
Pyrrolin-3-one **1077**
Pyrrolizidine Synthesis **607**

Q

Qinghaisu **421**
2(1*H*)-Quninoline **1085**

R

Radical **1157**
Radical Addition Reaction **373**
Radical Decarboxylation of Proline **607**
Radicophilic **603**
Redox System **359**
Reductive Cyclisation **813**
Reductive Photocyclization **19**

Retroaldolization **75**
Ribonucleotide **593**
Rollinia mucosa **213**
Rolliniastatin 2 **213**
π-Route **187**

S

$S_{RN}1$ Substitution **849**
Sea Hare **553**
5,10-Secosteroid **869**
Securinine **987**
Selective Ether Cleavage in Colchicine **365**
Selenium Anomeric Effect **389**
α-Selenoalkyllithium **1203**
Selenol Ester **67, 583**
Sesquiterpene **529**
Sesquiterpene Lactone **779**
[1,5]Sigmatropic Reaction **39**
N-Silyl Enamine **879**
Silyl Enol Ether **773**
Singlet Oxygen **445, 547**
Sodium Channel **639**
Sodium Cyanoborohydride Reduction **687**
Soft Coral **669**
Solution Conformation of Orthosomycin **83**
Solvolyses Tricycle **187**
D-Sorbitol **805**
Spiroindolenine **175**
Static and Dynamic Induced Shape **767**
Stereocontrolled Synthesis **841**
Stereoselective Epoxidation **333**
Stereoselective Hydrogenation **59**
Steroid **333**
Steroidal Isoxazolidine **869**
Strain Induced Shape Distortion **767**
2-Substituted Pyrrole **629**
Substitution **489**
σ-Sulfurane **99**
Sulphone **773**

T

Tandem Electrocyclic-[3,3]Sigmatropic Reaction **43**
Terpenoid Diol **151**
2,3,7,8-Tetrabromodibenzodioxin **719**
2,3,7,8-Tetrabromodibenzofuran **719**
Tetrahydrobenzopyran **55**
Tetrahydrocarbazole **979**
Tetrazoloquinoline **1085**
Teucrium kotschyanum **111**
Thermal Electrocyclic Reaction **275**
Thermolysis **39, 43, 559, 719**
Thiochromanone **67**
Thioketal **23**
Thromboxane Receptor Antagonist **573**
Trachelanthamidine **607**
trans-2-(α-Hydroxybenzyl)Sulfoxide **937**
trans-2-(α-Hydroxybenzyl)thiane Sulfoxide **937**
Transannular 1,3-Dipolar Cycloaddition **869**
Transannular Nitrone 1,4-Cycloaddition **869**
Trialkylsilyl Triflate **657**
1,2,3,-Triazole **133**
Triazolo[4,3-*b*][1,2]diazepine **259**
Triazolo[1,5-*a*]pyrimidine **239**
Triazolo[4,3-*a*]pyrimidine **239**
Triazolo[4,3-*c*]pyrimidine **239**
1,2,4-Triazoloquinoline **1085**
Tributyltin Enolate **15**
Tributyltin Hydride **373**
Tricyclic Furan **729**
Trimethylenemethane Palladium Complex **321**
Trimethylsilyldiazomethane **133**
Triphenylstannane **759**
Tropane **129, 187**
(−)-Tylophorine **63**

U

Unnatural Amino Acid **957**
Unsaturated Aldimine **445**

V

Valinol Chiral Auxiliary **295**
Vinblastine **951**
(±)-Vindoline **43**
Vinylene Carbonate **93**
Vitamin B_{12} **1193**
Vitamin D **75**
VT Nmr **1121**

W

Withanolide D **59**

X

Xanthate **171**

Y

Y-590 Derivative **1085**
Yuehchukene Synthesis **565**

Z

Zoantlus Sp. **103**

Information for Authors

"HETEROCYCLES" — *An International Journal for Reviews and Communications in Heterocyclic Chemistry* publishes accounts of research on the organic and physical organic chemistry of heterocyclic compounds and natural products having the heterocyclic system. All manuscripts and correspondence should be addressed to The Editor:

Keiichiro Fukumoto
The Japan Institute of Heterocyclic Chemistry
1-7-804, Motoakasaka-1-chome, Minato-ku, Tokyo 107, Japan

Reviews—The Journal welcomes review-type manuscripts containing appropriate heterocyclic material. Especially welcome are reviews based, in part, on work in the author's laboratory as well as reviews distinguished by some novel interpretation or presentation of the material. Reviews should normally be restricted to thirty pages, including drawings and references.

Review articles are solicited by the Editor or are submitted on encouragement by the Editor after preliminary inquiry by the prospective author. Although it is advisable that authors obtain preliminary approval before preparing a manuscript, manuscripts submitted without prior approval will also be considered. All manuscripts will be sent to reviewers as part of the editorial policy.

Communications must feature novel, unpublished material in preliminary form; they may be either experimentally oriented or entirely theoretical. The editors will consider manuscripts which feature urgent significant results. Contributions that are sensibly speculative or constitute new interpretations of older findings are appropriate. Include abstract at the beginning of the text.

Heterocyclic Papers contain definitive accounts of significant observations obtained through original work in heterocyclic chemistry. Contributors who wish to have an experimental section included in their manuscripts should submit these manuscripts as Heterocyclic Papers.

Announcements—The Journal will print, upon request, announcements of meetings, new books, or other developments of interest to heterocyclic and natural product chemists.

Presentation of manuscripts—Manuscripts should be written in a clear and accurate fashion with careful attention to detail. Manuscripts are considered for publication on the proviso that they have not been, nor will be, published elsewhere. Ordinarily a manuscript will be sent to two competent referees for critical appraisal. An author is free to suggest the names of appropriate scientific experts who might be called upon for refereeing purposes. Comments of referees may be transmitted to the authors, but in no instance will the names of the referees be disclosed to the author without prior permission.

Form of manuscript—Submit manuscripts in quadruplicate (in English), including the original typewritten copy, with copies of graphs, drawings, etc. Manuscripts should be typed, double spaced, using a black ribbon (blue ink can not be reproduced) on good quality white bond paper. Special size paper, 25.6 cm wide by

36.4 cm deep with an exact typing area of 21 cm wide by 29.5 cm deep should be used. If the above typing format is not observed, the manuscripts will be returned to the Authors.

A. *General Instruction*

1. *Arrangement.* Typing, on one side of the paper, should occupy the space within the guide-lines on the laysheets.
2. *Spacing.* Text and references must be in *double spaced* typing.
3. *Typing.* Use a black typewriter ribbon, preferably on an electric machine. Pages must be kept clean; any smudges would be reproduced by the photo-offset process.
4. *Corrections.* To correct errors either:

(a) Retype several words on a spare laysheet, then paste the strip over the section to be corrected, using rubber cement; or (b) Delete the incorrect part with white correcting fluid and retype (erasures by rubber are not acceptable). The same typewriter should be used for corrections.

5. *Italics.* Words normally printed in italics should be in *Roman* type and *Underlined.*

B. *Layout of Manuscripts*

1. *General.*

(a) *Position on page.* The Title, Authors' names, Address, and Abstract must be inset 2.4 cm from the left-hand margin, following the dotted guide-line on the laysheet. The text and references must begin at the left-hand margin (guide-line).

(b) *Heading.* The heading to the paper must comprise:

TITLE (in ROMAN CAPITALS: not underlined)
Authors' name(s) (First letters only in capitals)
Authors' address for correspondence

[Authors' name should include the first name (without degrees) and the senior author should be indicated by an asterisk (*)]

(c) *Abstract.* Every manuscript must have an Abstract. This must be typed double spaced.

2. *Tables.* Tables must be inserted by the authors at the appropriate points in the text.
3. *Structural Formulae, Figures, Illustrations and Graphs.* These must be original line drawings or sharp glossy photographs (*not* Xerox or similar copies). They should be inserted by the authors at the appropriate points in the text. Captions and wording on the figures should as far as possible be typed.
4. *Mathematical Expressions and Chemical Equations.* Simple mathematical expressions should be typed on one line in the text, e.g. 1/5 or 0.2, not $\frac{1}{5}$ More complex expressions should be displayed, beginning at the blue dotted line 2.4 cm from the left-hand margin of the laysheet. In such cases expressions should be numbered in parentheses flush to the right, for reference in the text.
5. *Heading and Sub-headings.* Main headings, in capitals, should commence 2.4 cm from the left-hand margin, viz. at the dotted line in case of review.
6. *Abbreviations.* Abbreviations should be in accordance with the International System (SI) as adopted by the Chemical Society (London) on Weights and Measures.

Common abbreviations are: meter, m; centimeter, cm; millimeter, mm; micrometer, μm; nanometer, nm; kilogram, kg; gram, g; milligram, mg; microgram, μg; nanogram, ng; milliliter, ml; microliter, μl; molar, M; millimolar, mM; micromolar, μM; normal, N; disintegrations per minute or second, dpm or dps; centigrade, ℃; second, sec; minutes, min; hours, h; standard deviations, SD; standard error, SE; percent, %; melting point, mp; decomposition, decomp; boiling point, bp; calorie, cal; kilocalorie, kcal; nuclear magnetic resonance, nmr (δ, ppm); infrared, ir (υ, cm^{-1}); ultraviolet, uv (λ, nm); mass, ms (m/z); circular dichromism, cd; optical rotatory dispersion, ord; number, No; Angstrom units, Å, frequency, Hz; parts per million, ppm; equation, Eq.

7. *Nomenclature.* All nomenclature should be simple, unambiguous, and in conformity with the conventions developed by the International Union of Pure and Applied Chemistry.

8. *Acknowledgements and References.* Acknowledgements may be included as a separate section. Authors are requested to submit their references according to the following format:

1. T. Kametani and T. Honda, 'Advances in Heterocyclic Chemistry: Application of Aziridines to the Synthesis of Natural Products,' Vol. 39, ed. by A. R. Katritzky, Academic Press, Inc., London, 1986, pp. 181-236.
2. T. Kametani, T. Katoh, M. Tsubuki, and T. Honda, J. Am. Chem. Soc., 1986, 108, 7055; M. Ihara, K. Noguchi, T. Ohsawa, K. Fukumoto, and T. Kametani, J. Org. Chem., 1983, 48, 3150; T. Kametani, H. Yukawa, Y. Suzuki, and T. Honda, J. Chem. Soc., Perkin Trans. 1, 1985, 2151.
3. L. M. Jackman, 'Applications of Nuclear Magnetic Resonance Spectroscopy in Organic Chemistry,' Pergamon Press, Inc., New York, 1959.

RATES FOR AUTHORS

(1) Communications and Papers

Page Charges

Contributions less than 4 pages : ¥18,000

More than 4 pages : ¥9,000 per 2 pages

Reprints

	1-4 pp.	5-8 pp.	9-12 pp.	13-16 pp.
100	¥18,000	¥32,400	¥45,000	¥54,000
200	27,000	48,600	67,500	81,000
300	36,000	64,800	90,000	108,000

§ The author whose manuscript is published in the journal must pay the page charge and there is no waiver system.

(2) Reviews

* No page charge is made for publication of reveiws.

Reprints

100 reprints	:	¥3,500 per page
200 reprints	:	¥5,600 per page
Each additional 100	:	¥1,800 per page

(3) Postage

Shipping charge should be paid by authors.

SUBSCRIPTION INFORMATION for 1989 Vol.28 and Vol.29

Japan

The annual subscription price is ¥121,440 including postage and handling. Checks should be made payable to The Japan Institute of Heterocyclic Chemistry. All orders, renewals, requests for single or back numbers and all remittances should be sent to :

The Japan Institute of Heterocyclic Chemistry
1-1-7-804, Motoakasaka, Minato-ku
Tokyo 107, Japan
Tel : (03)404-5019 ; Fax : (03)497-9370

All Other Countries

The annual subscription price is Dfl. 1815 (approx. US$900.00), including postage and handling. The journal will be sent by S.A.L. (Surface Air Lifted) mail wherever this service is available. Airmail rates are available on request. Subscription orders should be sent to :

Elsevier Science Publishers
Journals Department
P.O. Box 211
1000 AE Amsterdam
The Netherlands
Tel : (020)580-3911 ; Telex : 18582

or to your subscription agent.
Request for missing issues will be honored free of charge provided they are made within three months of publication.